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| QUALCOMM, INC 5775 MOREHOUSE DR. SAN DIEGO, CA 92121 | | | STEIN, JULIE E | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/773,660 | HO ET AL. | |
| | Examiner | Art Unit | |
| | Julie E. Stein, Esq. | 2688 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-57 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-57 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities: In paragraph 7, "east" should be "least"; in paragraph 24, on page 6, the period should be removed from "each request. to the corresponding mobile stations"; and on page 16, "What is claimed is:" should be deleted. In addition, Figures 1 and 2 in the Brief Description of the Drawings should be changed to indicate that the figures are known.

Appropriate correction is required.

Claim Objections

3. Claims 16, 51, and 57 are objected to because of the following informalities: there is no support within the specification as originally filed to support the recited

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limitation, "wherein the processing subsystem is configured to have the classes of services assigned at call setup." Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 16, 51, and 57 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. These claims recite that the processing subsystem of the mobile station "is configured to have the classes of service assigned at call setup," however there is insufficient description within the specification to enable one of ordinary skill in the art to understand what is meant by the classes being assigned at call setup.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

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7. Claims 1, 3, 5-6, 21, 33, and 35-36 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,597,913 to Natarajan.

Natarajan discloses all the elements of independent claim 1, including:

A base station (Figure 2, elements 12, 14, 22, 24, and 26) comprising:

a transceiver subsystem (column 2, lines 40 to 52, the BS provides RF

coverage—therefore it is inherent that the BS has transceiver subsystem); and

a processing subsystem (column 4, lines 50 to 55, the BS determines whether to grant channel requests—therefore a process subsystem is inherent);

wherein the processing subsystem is configured to receive a request for service from a mobile station (column 4, line 50) and to make a determination whether or not to issue a grant to the mobile station in response to the request for grant (column 4, lines 50 to 55).

Natarajan also discloses all the elements of dependent claim 3, including wherein the processing subsystem is configured to make the determination independently of one or more additional base stations. See column 4, lines 50 to 66, where the BS is the only BS that can service the channel request.

Natarajan also discloses all the elements of dependent claim 5, including wherein if the processing subsystem determines that the grant should be issued to the mobile station, the base station is configured to issue the grant. See column 4, lines 50 to 65.

Natarajan also discloses all the elements of dependent claim 6, including wherein the processing subsystem is configured to identify the mobile station in the grant. See

column 14, lines 50 to 65, it is inherent that the mobile station would be identified in the grant so that the mobile station knew which channel(s) it had been allocated.

The rejection of claim 1 is hereby incorporated. Natarajan discloses all the elements of independent claim 21, including:

A system comprising:

a base station (Figure 2, elements 12, 14, 22, 24, and 26); and

one or more mobile stations (Figure 2, element 40) configured to communicate with the base station via corresponding wireless communication links (column 4, lines 8 to 20);

wherein each mobile station is configured to transmit requests for grants to the base station (column 4, lines 42 to 49);

wherein the base station is configured to receive requests from the mobile stations (column 4, line 50 to 65), to process the requests (Id.), to allocate communication link resources among the mobile stations (Id.), and, if necessary, to transmit one or more grants to the mobile stations in accordance with the allocation of communication link resources (Id.); and

wherein each mobile station is configured to transmit data to the base station in accordance with any grants received from the base station (column 3, lines 35 to 45, the cited section describes the use of the allocated channels for voice or data communications, therefore it is inherent that once a grant is requested and given, the corresponding mobile station would be configured to transmit data in accordance with the grant).

Natarajan discloses all the elements of dependent claim 33, including wherein the mobile station is configured to generate one or more additional requests for service for transmission to the base station if no grant is received in response to a previous request. In view of column 4, lines 50 to 65, it is inherent that the mobile station would generate additional requests if no grant was received, as the need for the channel grant would not have changed.

The rejection of claims 1 and 21 are hereby incorporated. Natarajan discloses all the steps of independent claim 35, including:

A method comprising receiving a request for a grant at a base station (column 4, line 50);

processing the request at the base station (column 4, lines 50 to 55); and

determining at the base station whether to issue the grant (column 4, lines 50 to 65).

Natarajan discloses all the steps of dependent claim 36, including issuing the grant if the base station determines that the grant should be issued. See column 4, lines 50 to 65.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 4, 12, 16, 19, 24, 27, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Natarajan in view of U.S. Patent Application Publication No. 2002/0183039 to Padgett et al.

Natarajan teaches all the elements/steps of dependent claims 4, 27, and 45 except wherein (the determination is made) (claim 4), (the base station is configured to process the requests and allocate communication link resources among the mobile stations) (claim 27), (determining whether to issue the service grant is performed) (claim 45), at the medium access control layer. However, Padgett teaches an adaptive load and coverage management (ALCM) system located at the BS, which includes a load management module, which further includes a MAC layer entity that monitors the determination of the channel grants. See paragraphs 18 and 25. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to understand that the BS of Natarajan would determine whether to grant the channel

request at the MAC layer because as taught by Padgett, the determination of the channel grants in the base station occurs at the MAC layer. See *Id.*

The rejection of claims 1, 21, and 35 are hereby incorporated. Natarajan teaches all the elements of independent claim 12, including:

A mobile station (Figure 2, element 40) comprising:

a transceiver subsystem (column 4, line 44 to 45, the mobile station transmits a channel request, therefore a transceiver subsystem is inherent); and

a processing subsystem (column 4, lines 33 to 49, the mobile station determines the need for a channel and due to this transmits the request, therefore the processing subsystem is inherent) coupled to the transceiver subsystem (this is inherent based on the mobile station transmitting due to its decision that it requires a channel) and configured to process information received from the transceiver subsystem (column 4 lines 62 to 66) and to generate information to be transmitted by the transceiver subsystem (column 4, lines 33 to 49);

wherein the processing subsystem is configured to generate a request for transmission of a base station (column 4, line 45), to identify a corresponding grant received from the base station (column 4, lines 62 to 66), and to control the transceiver subsystem to transmit data according to the received grant (column 3, lines 35 to 45, describes the use of the allocated channels for voice or data communications, therefore it is inherent that once a grant is requested and given, the corresponding mobile station is configured to transmit data in accordance with the grant).

However, Natarajan does not explicitly teach wherein the request specifies one of a set of available classes of service. But Padgett teaches that embedded in the mobile request may be information about the service class. See paragraph 18. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify Natarajan to include classes of service in the mobile channel request as taught by Padgett because it supplies specific information to the BS to help in determining whether and at what data rate to grant the channel request. See *Id.*

Natarajan in view of Padgett teaches all the elements of dependent claim 19, including the mobile station is configured to generate one or more additional requests for service for transmission to the base station if no grant is received in response to a previous request. In view of column 4, lines 50 to 65 of Natarajan, it is inherent that the mobile station would generate additional requests if no grant was received as the need for the channel has not changed.

Natarajan in view of Padgett teaches all the elements of dependent claim 16, including wherein the processing subsystem is configured to have the classes of service assigned at call setup. It would have been obvious to one of ordinary skill in the art at the time the invention was made, to understand that the classes of service would be assigned at call setup because the mobile station is indicating the classes of service (Padgett, paragraph 18) requested at a given time in order to support a specific type of call, e.g. voice or data. See Natarajan, column 3, lines 35 to 45.

Natarajan in view of Padgett teaches all the elements of dependent claim 24, including wherein each of the grants specifies a class of service for which the corresponding communication link resources are allocated. See Padgett, paragraph 18, which teaches that a mobile station includes a service class in its request and the BS includes the type of service in its grant.

11. Claims 2, 7, 9, 11, 22-23, 28-30, 34, 37-38, 40, 42-44 rejected under 35 U.S.C. 103(a) as being unpatentable over Natarajan in view of U.S. Patent Application Publication No. 2004/0228349 to Vrzic et al.

Natarajan teaches all the elements/steps of dependent claims 2, 23, 43, except, wherein the processing subsystem is configured to make the determination independently of a base station controller (claim 2), further comprising a base station controller, wherein the base station is configured to process the request, allocate communication link resources and transmit grants independently of the base station controller (claim 23), or wherein determining whether to issue the service grant is performed without communicating with one or more additional base stations (claim 43).

But, Vrzic teaches a method and system including both a BSC and BTSs, in which the BTSs process and allocate the mobile channel grant requests. See paragraphs 39 to 41, in which non-soft handoff mobile stations are scheduled by BTSs not BSCs. Therefore, while Natarajan does not explicitly teach that the system taught does not use BSCs, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to understand that such a system could include BSCs as taught by Vrzic, but that the BTSs would be used instead because the time to schedule

the mobile channel grant requests is shorter than when using the BSCs. See paragraph 10.

Natarajan in view of Vrzic teaches all the steps of dependent claim 44, including wherein determining whether to issue the service grant is performed without communicating with one or more additional base stations. See, Natarajan, column 4, lines 50 to 66, where the BS is the only BS that can service the channel request.

Natarajan teaches all the elements/steps of claims 7, 9, 11, 37, 40, and 42, except, wherein the processing subsystem is configured to issue the grant as an individual grant, a common grant, or at least one individual grant and at least one common grant.

However, Vrzic teaches in paragraph 12, that the BTS may send dedicated or common commands (grants) to individual mobiles or to groups of mobiles. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to understand that the grants taught in Natarajan could be dedicated or common and could be sent to individual, some, or all of the mobiles in a given sector and that dedicated and common grants could be sent together, all depending on the various mobile requests and the data rates available to the BTS. Id.

Natarajan in view of Vrzic teach all the elements of dependent claim 38, including identifying a mobile station in the grant. See, Natarajan, column 4, lines 50 to 65, it is inherent that the mobile station would be identified in the grant so that the mobile station knew which channel(s) it had been allocated.

Natarajan teaches all the elements of dependent claims 22 and 34, except, wherein, for each mobile station, if the mobile station cannot transmit under any grants received from the base station (claim 22) or no grant is received from the base station (claim 34), the mobile station is configured to transmit data autonomously to the base station. But, Vrzic teaches that a mobile station can transmit at a data rate up to an assigned maximum data rate autonomously without waiting for a scheduling grant. See, Vrzic, paragraph 39. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to understand that the mobile station in Natarajan would send data autonomously at a specific lower data rate until a grant was received because while a grant would allow the mobile station to transmit at a higher data rate, without a grant, the mobile station could still transmit data, just at a lower data rate. See Vrzic, paragraph 39.

Natarajan teaches all the elements of dependent claims 28-30, except a mobile station having one or more buffers, wherein each buffer is associated with one of the classes of service, the processing subsystem is configured to monitor the buffers, and for each buffer, to generate a transmission request if a threshold amount of data is detected in the buffer, and further wherein the request specifies the class of service associated with the buffer and the amount of data in the buffer.

However, Vrzic teaches that it is known in the art to use information regarding the buffer occupancy of the mobile station in determining and scheduling a channel grant. See paragraph 6. In addition, in paragraph 39, Vrzic teaches that the mobile station will transmit through either a grant or autonomously until its buffer is empty. Therefore, it

would have been obvious to one of ordinary skill in the art at the time the invention was made, to understand that the mobile station of Natarajan would include buffers as taught by Vrzic because these buffers contain the data to be transmitted and are thus used by the mobile station in determining the requests for channel grants. See Vrzic, paragraph 6. Also, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to understand that the buffers would be monitored and if a threshold amount of data was detected a request would be generated including the class of service and amount of data because as taught by Vrzic, the mobile station's goal is to transmit all the data in a given buffer (see paragraph 39) at the highest rate possible (see paragraph 7).

12. Claim 46-48, 51-54, and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Natarajan as applied to claim 35 above (for claims 46 to 48 and 51), and further in view of Padgett and Vrzic.

Natarajan teaches all the steps of dependent claim 46 and independent claim 52, including transmitting a request for a grant from a mobile station to the base station. See column 4, lines 50 to 65. However, Natarajan does not explicitly teach, the request specifying one of a set of available classes of service; if a grant corresponding to the request is issued, transmitting data in the specified class according to the received grant; and if no grant corresponding to the request is issued, either transmitting data in the specified class in autonomous mode or transmitting a subsequent request, or both.

But, as indicated in the above rejections, Padgett teaches that embedded in the mobile request may be information about the service classes requested and that in the

granted request, the base station indicates the service class for which the grant is granted. See paragraph 18. Also, Vrzic teaches that a mobile station can transmit at a data rate up to an assigned maximum data rate autonomously without waiting for a scheduling grant. See, Vrzic, paragraph 39.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify Natarajan to include classes of service in the mobile channel request as taught by Padgett because it supplies specific information to the BS to help in determining whether and at what rate to grant the channel request. See paragraph 18. Also, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to understand that the mobile station in Natarajan would send data autonomously at a specific lower data rate until a grant was received because while a grant would allow the mobile station to transmit at a higher data rate, without a grant, the mobile station could still transmit data, just at a lower data rate. See Vrzic, paragraph 39. Also, it would have been obvious to one of ordinary skill in the art at the time the invention was made to understand that in view of Natarajan, column 4, lines 50 to 65, the mobile station would generate additional requests if no grant was received as the need for the channel grant would not have changed.

Natarajan in view of Padgett and Vrzic teach all the steps of dependent claims 47 to 48 and 53 to 54, including a mobile station having one or more buffers, wherein each buffer is associated with one of the classes of service, the processing subsystem is configured to monitor the buffers, and for each buffer, to generate a transmission request if a threshold amount of data is detected in the buffer, and further wherein the

request specifies the class of service associated with the buffer and the amount of data in the buffer. Specifically, as indicated in the above rejections, Vrzic teaches that it is known in the art to use information regarding the buffer occupancy of the mobile station in determining and scheduling a channel grant. See paragraph 6. In addition, in paragraph 39, Vrzic teaches that the mobile station will transmit through either a grant or autonomously until its buffer is empty.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to understand that the mobile station of Natarajan would include buffers as taught by Vrzic because these buffers contain the data to be transmitted and are thus used by the mobile station in determining the requests for channel grants. See Vrzic, paragraph 6. Also, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to understand that the buffers would be monitored and if a threshold amount of data was detected a request would be generated including the class of service and amount of data because as taught by Vrzic, the mobile station's goal is to transmit all the data in a given buffer (see paragraph 39) at the highest rate possible (see paragraph 7).

Natarajan in view of Padgett and Vrzic teach all the steps of dependent claims 51 and 57, including wherein the processing subsystem is configured to have the classes of service assigned at call setup. It would have been obvious to one of ordinary skill in the art at the time the invention was made, to understand that the classes of service would be assigned at call setup because the mobile station is indicating the classes of

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service (Padgett, paragraph 18) requested at a given time in order to support a specific type of call, e.g. voice or data. See Natarajan, column 3, lines 35 to 45.

13. Claims 8, 10, 39, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Natarajan in view of Vrzic as applied to claims 1 and 35 above, and further in view of Padgett.

Natarajan in view of Vrzic teaches all the elements of claims 8, 10, 39, and 41, except, explicitly indicating a specific service class for which the grant is issued. However, as indicated in the above rejections, Padgett teaches that embedded in the mobile request may be information about the service class and that in the granted request, the base station indicates the service class for which the grant is granted. See paragraph 18. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify Natarajan in view of Vrzic to include classes of service in the mobile channel request as well as in the base station's grant as taught by Padgett because the service information in the request supplies specific information to the BS to help in determining whether and at what rate to grant the channel request and the resulting grant from the BS indicates the service and corresponding rate to the mobile station. See *Id.*

14. Claims 13-15, 20, and 25-26 rejected under 35 U.S.C. 103(a) as being unpatentable over Natarajan in view of Padgett as applied to claims 12 and 21 above, and further in view of Vrzic.

Natarajan in view of Padgett teach all the elements of claims 13-15, except the mobile station having one or more buffers, wherein each buffer is associated with one of

the classes of service, the processing subsystem is configured to monitor the buffers, and for each buffer, to generate a transmission request if a threshold amount of data is detected in the buffer, and further wherein the request specifies the class of service associated with the buffer and the amount of data in the buffer.

However, Vrzic teaches that it is known in the art to use information regarding the buffer occupancy of the mobile station in determining and scheduling a channel grant. See paragraph 6. In addition, in paragraph 39, Vrzic teaches that the mobile station will transmit through either a grant or autonomously until its buffer is empty. Furthermore, as indicated in the above rejections, Padgett teaches that the service class is included in the mobile station's grant request. See paragraph 18. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to understand that the mobile station of Natarajan in view of Padgett would include buffers as taught by Vrzic because these buffers contain the data to be transmitted and are thus used in determining and scheduling channel grants. See Vrzic, paragraph 6. Also, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to understand that the buffers would be monitored and if a threshold amount of data was detected a request would be generated including the class of service and amount of data because as taught by Vrzic, the mobile station's goal is to transmit all the data in a given buffer (see paragraph 39) at the highest rate possible (see paragraph 7).

Natarajan in view of Padgett teach all the elements of claim 20, except wherein if no grant is received from the base station in response to a request, the processing

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subsystem is configured to autonomously transmit data to the base station. But, Vrzic teaches that a mobile station can transmit at a data rate up to an assigned maximum data rate autonomously without waiting for a scheduling grant. See, Vrzic, paragraph 39. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to understand that the mobile station in Natarajan would send data autonomously at a specific lower data rate until a grant was received because while a grant would allow the mobile station to transmit at a higher data rate, without a grant, the mobile station could still transmit data, just at a lower data rate. See Vrzic, paragraph 39.

Natarajan in view of Padgett teaches all the elements of claims 25-26, except wherein the grants include one or more individual each of which specifies a corresponding mobile station to which the individual grant is issued or one or more common grants each of which authorizes any mobile station to transmit data in the specified class of service under the common grant. However, as indicated above, Vrzic teaches in paragraph 12, that the BTS may send dedicated or common commands (grants) to individual mobiles or to groups of mobiles. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to understand that the grants taught in Natarajan could be dedicated or common and could be sent to individual, some, or all of the mobiles in a given sector.

Double Patenting

15. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory

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obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

16. Claims 1-57 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-85 of copending Application No. 10/646,955. Although the conflicting claims are not identical, they are not patentably distinct from each other because they both relate to requesting and granting channel requests between a mobile station and a base station.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Korean Patent Publication KR2001056478 to Kang teaches the use of a MAC layer scheduler in granting channels to a mobile station. U.S. Patent No. 6,571,101 to Schulz teaches a method of requesting and granting channels to multiple mobile stations. The following Qualcomm Patent Application Publications, while owned


by the current assignee are still deemed relevant to the present application: U.S. Patent Application Publication Nos. 2005/0254465 to Lundby et al., teaches using T/P ratios supplied to the mobile user in channel grant; 2004/0160922 to Nanda et al., teaches determining data rates for the reverse link of a channel grants; 2004/0162098, to Wei et al., teaches controlling power in the reverse-link channels by adjusting the T/P ratios; and 2004/0160914 to Sarkar, teaches techniques for controlling channel congestion through specific allocation of channels.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie E. Stein, Esq. whose telephone number is (571) 272-7897. The examiner can normally be reached on M-F (8:30 am-5:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on (571) 272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JES


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PRIMARY EXAMINER